

P. K. SWEET.
STOVE DAMPER.

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1,001,478.

Patented Aug. 22, 1911.

Fig. 1.

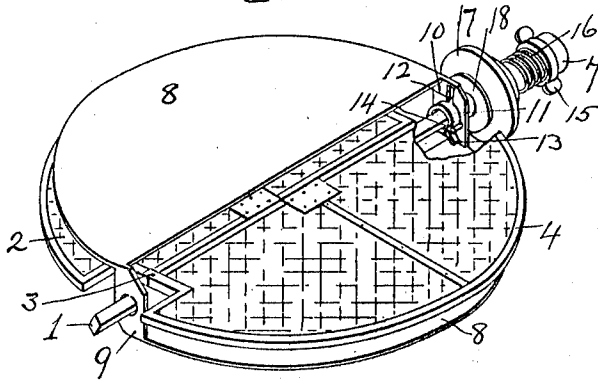


Fig. 2.

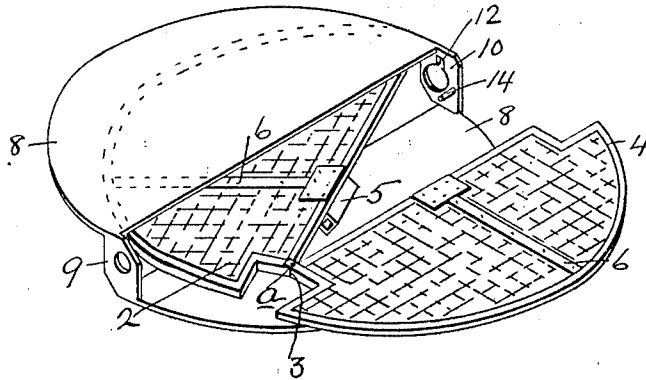
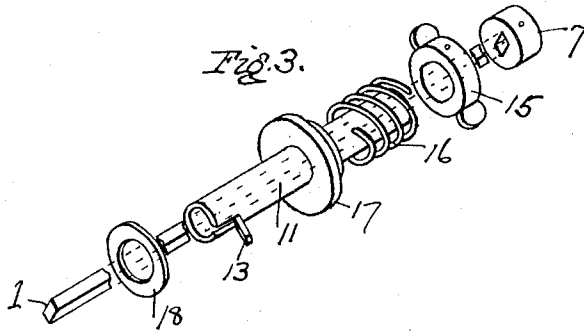


Fig. 3.



WITNESSES:

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STOVE-DAMPER.

1,001,478.

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To all whom it may concern:

Be it known that I, PHILIP K. SWEET, a citizen of the United States of America, and residing at Westwood, in the county of Bergen and State of New Jersey, have invented a certain new and useful Improvement in Stove-Dampers, of which the following is a specification.

My invention relates to stove dampers and particularly to a combined spark arrester and damper, the object of my invention being to provide a simple and practicable device, as readily stored and carried in stock by stove and furnace houses as the common damper alone, and serving the double function of a screen for arresting sparks or soot and a draft regulator.

In the accompanying drawing, Figure 1 is a perspective of a combined screen and damper disclosing my invention in one form; Fig. 2 is a similar view showing the manner of assembling the damper and screen; and Fig. 3 is a perspective of the spindle and sleeve elements.

In the form shown in the drawing my combined spark arrester and damper comprises a spindle 1 adapted to be supported in a stove pipe in any desired fashion. Upon this spindle I mount in any suitable way the screen 2. As shown the screen is formed in halves pivoted together at 3, for convenience in handling and assembling. The pivoting of the parts together is optional, as is likewise the method of accomplishing this end, that illustrated viz. by means of overlapping extended ends of the binding strip 4 swiveling on the pin *a*, being merely a convenient and cheap construction. Each half is provided with a carrier 5 having a squared bore through which the spindle 1 passes. Thin ribs 6 may be provided extending from each carrier to the binder 4 to stiffen the screen. Obviously if the spindle 1 is rotated by the handle 7, the screen partakes of its motion since the bore of carriers 5 is squared to fit the spindle.

The draft damper 8 may be made of any desired form. I prefer the simple casting shown comprising two wings spaced apart and lying one above and one below the screen. The webs 9 and 10 which unite the ends of the damper wings are perforated, the perforation in 10 being large enough to receive the sleeve 11 and opening into the slot 12 through which the pin 13 on the sleeve passes when assembling the parts in

position. In the latter operation, the sleeve is pushed in until its pin 13 clears pin 14, on the web 10, and after being turned is retracted, (by the expansion of the spring 16 in practice) so that the sleeve pin 13 is engaged between the web pin 14 and the adjacent damper wing. Obviously if the sleeve is turned upon the spindle by means of the handle 15 fast thereon, the damper is rotated through the engagement of the pin 13 between the damper wing and the web pin 14, while the screen remains stationary. The friction spring 16, abutment 17 and washer 18 are of well known construction and utility.

The operation of the device is readily understood. Assuming the screen to be in horizontal position across the flue, and the damper in closed position as shown in Fig. 1, the draft is opened to any desired extent by turning the sleeve handle 15 to the left or contra-clockwise, so that the overlying wing rises and the underlying wing swings down toward the perpendicular without disturbing the position of the spark screen. If the spindle 1 is journaled in the flue, as is the preferred method of mounting, the soot and ash which have been caught thereby and accumulated thereon, impeding the draft, may be readily removed by turning the handle 7 to bring the screen to vertical position. Should the cinders still adhere, a few flaps of the damper against the screen by the rotation of the handle 15 will serve to knock them free and they will fall into the usual soot trap in the flue.

Obviously the details of construction may be variously modified without departing from my invention, and I do not limit myself to those shown.

I claim as my invention:—

1. A device of the character described, comprising a draft damper and a spark arresting screen, in combination with a common axis and means for mounting said damper and screen thereon in rotatable relation toward and from each other.

2. A device of the character described, comprising a spindle axis and a sleeve rotatable thereon, a separate operating handle for each, in combination with a damper and a spark arresting screen having said spindle as a common axis, and one rotating with said sleeve and the other with said spindle.

3. A device of the character described, comprising a cooperating damper and spark

arresting screen, said coöperating parts being mounted on a common axis but independently rotatable with relation to each other.

5 4. A spark arresting screen, means for mounting the same on a substantially horizontal axis in a flue, in combination with a damper member rotatably mounted with relation to said screen and serving as a
10 knocker to displace accumulated soot on said screen, substantially as described.

5. A spark arresting screen, means for pivotally mounting the same on a substantially horizontal axis in a flue, in combination
15 with a damper member rotatably mounted with relation to said screen and serving as a knocker to displace accumulated soot on said screen, substantially as described.

20 6. A combined spark arresting screen and damper mounted on a common axis and

movable with relation to each other, said screen being arranged to lie across the flue and prevent the escape of sparks irrespective of the position of the damper.

25 7. A spark arresting screen mountable across a chimney flue, means for rotating said screen to bring it to a substantially vertical position, in combination with a knocker
30 independently rotatable with relation to said screen and adapted to be struck against the same in any position which it may be given to free said screen from accumulated soot and ash.

35 In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

PHILIP K. SWEET.

Witnesses:

WILLIAM ABBE,
L. H. GROTE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."